

FIG. 1

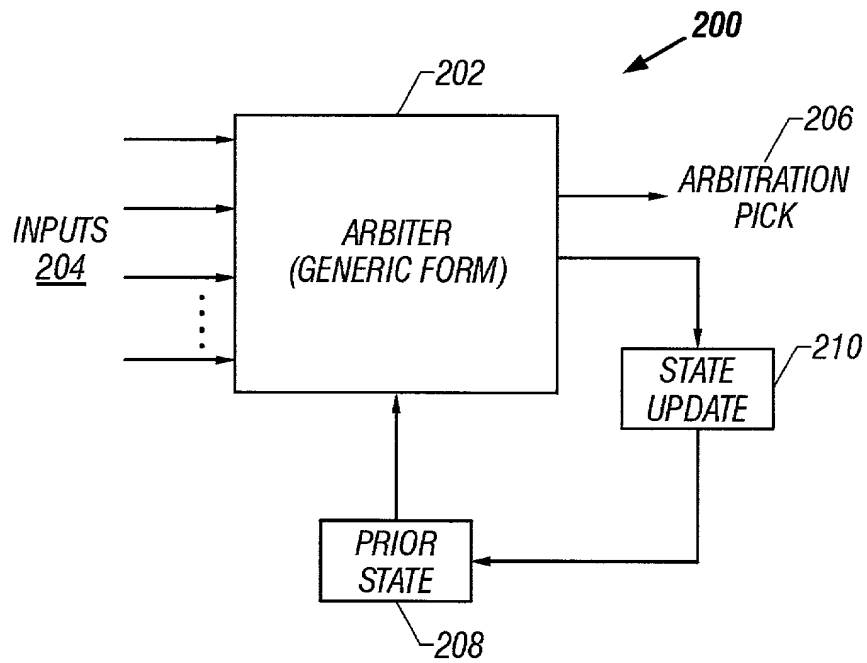


FIG. 2

300 ↙

ADDRESS INFORMATION 302		ARBITRATION RESULTS 304	
INPUTS 306	STATE INFORMATION 308	PICK INFORMATION 310	NEW STATE INFORMATION 312
FIELD <sub>(0)</sub>	FIELD <sub>(0)</sub>	FIELD <sub>(0)</sub>	FIELD <sub>(0)</sub>
FIELD <sub>(1)</sub>	FIELD <sub>(1)</sub>	FIELD <sub>(1)</sub>	FIELD <sub>(0)</sub>
⋮	⋮	⋮	⋮
FIELD <sub>(K)</sub>	FIELD <sub>(K)</sub>	FIELD <sub>(K)</sub>	FIELD <sub>(K)</sub>
316 ↙ ⋮	318 ↙ ⋮	320 ↙ ⋮	322 ↙ ⋮
FIELD <sub>(N-2)</sub>	FIELD <sub>(N-2)</sub>	FIELD <sub>(N-2)</sub>	FIELD <sub>(N-2)</sub>
FIELD <sub>(N-1)</sub>	FIELD <sub>(N-1)</sub>	FIELD <sub>(N-1)</sub>	FIELD <sub>(N-1)</sub>

314-0 ↖

314-K ↖

314-(N-1) ↖

FIG. 3

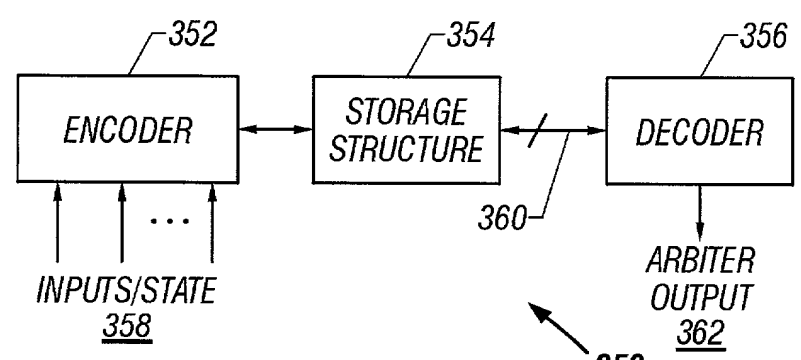


FIG. 4

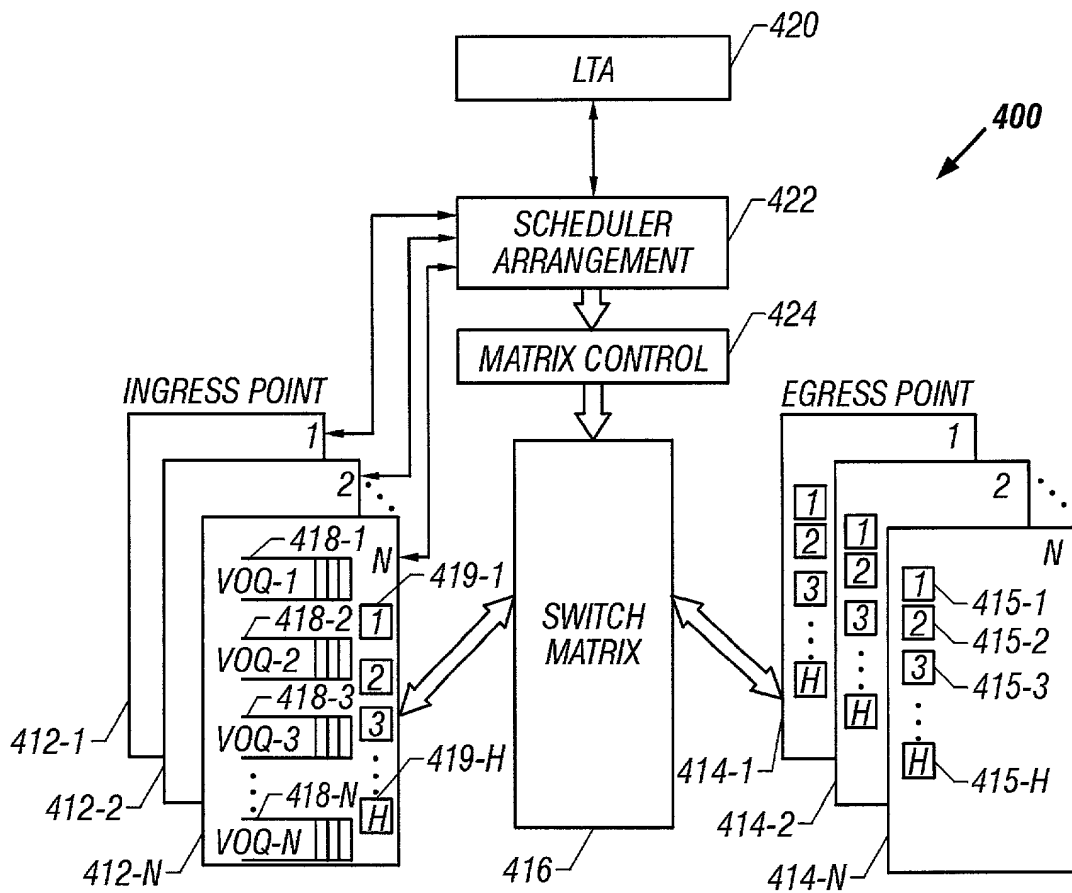


FIG. 5

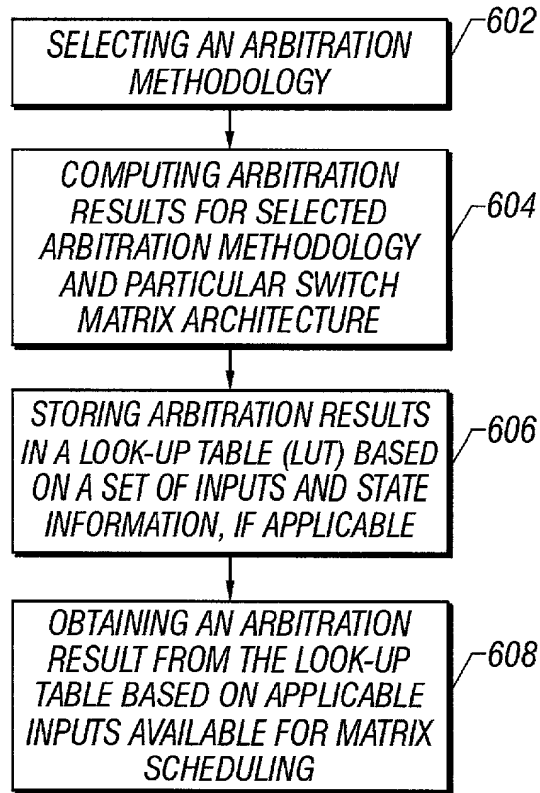


FIG. 6

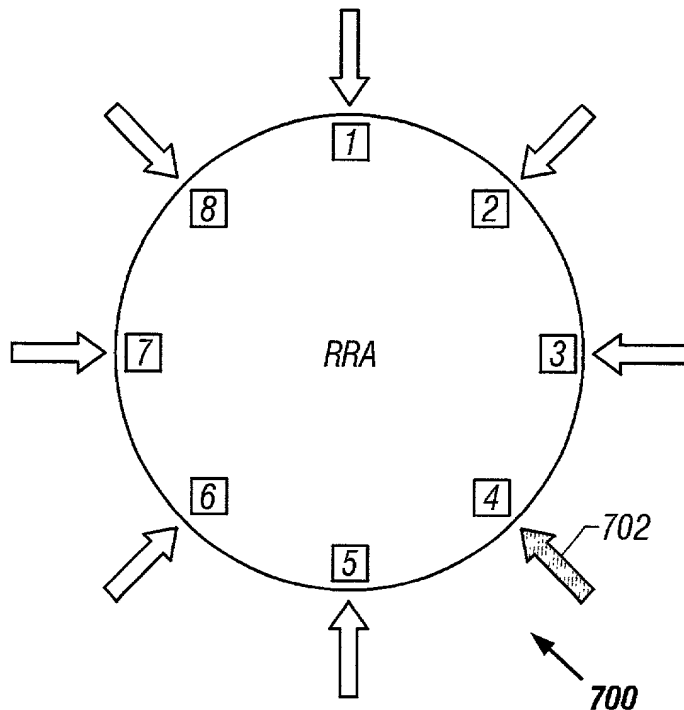


FIG. 7

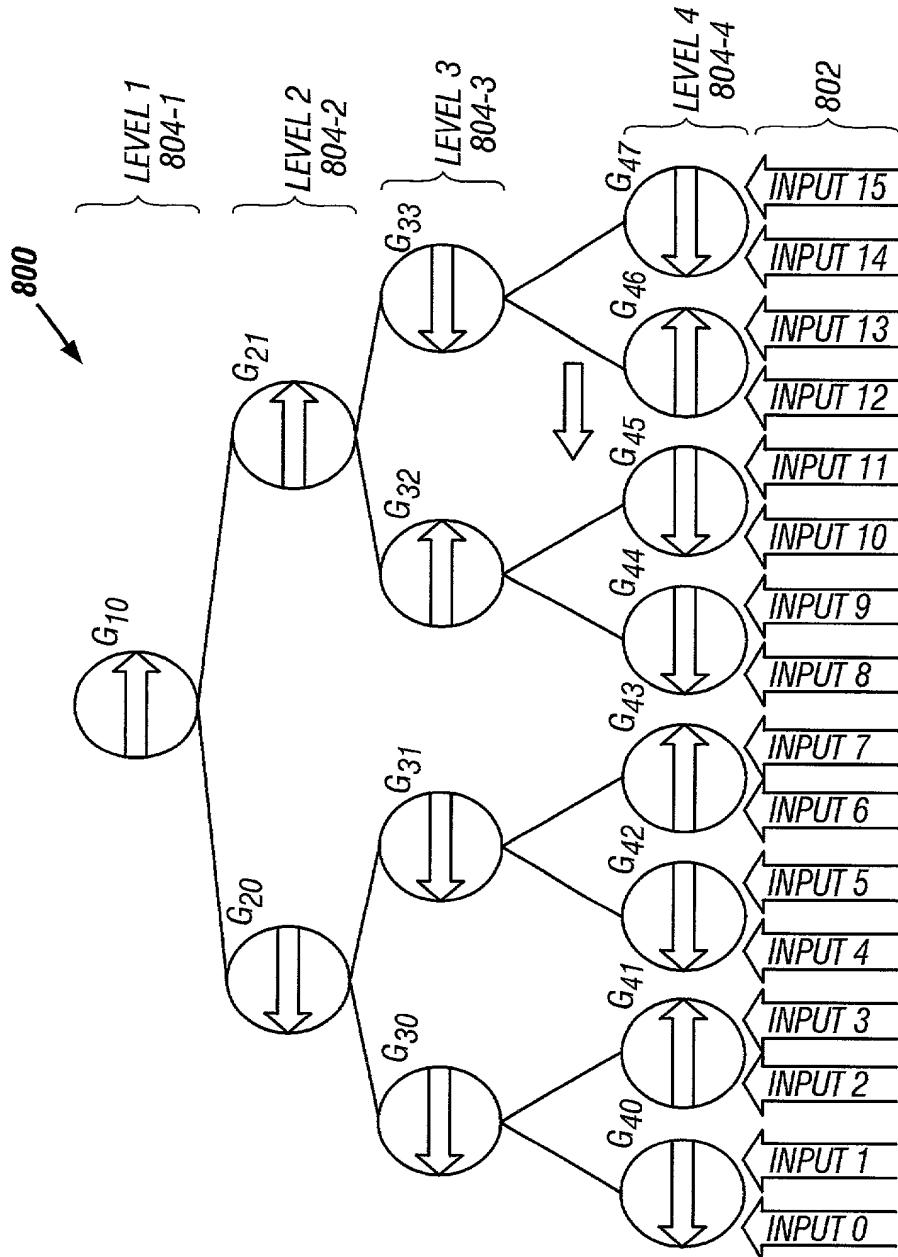


FIG. 8

900A

RRA						
INPUTS	STATE INFO	ADDRESS WIDTH	ROW NUMBER	ROW WIDTH	TABLE SIZE (BITS)	KBYTES
N	LOG(N)	$N + \text{LOG}(N)$	$2^{\wedge}(\text{ADR WIDTH})$	PICK	ROW WIDTH*NUMBER	
4	2	6	64	2	128	0.015625
8	3	11	2048	3	6144	0.75
16	4	20	1048576	4	4194304	512
32	5	37	$1.37439\text{E} + 11$	5	$6.87195\text{E} + 11$	83886080
64	6	70	$1.18059\text{E} + 21$	6	$7.08355\text{E} + 21$	$8.64691\text{E} + 17$

FIG. 9A

900B

BTA						
INPUTS	STATE INFO	ADDRESS WIDTH	ROW NUMBER	ROW WIDTH	TABLE SIZE (BITS)	KBYTES
N	$N-1$	$2N-1$	$2^{\wedge}(\text{ADR WIDTH})$	PICK+FLAGS	ROW WIDTH*NUMBER	
4	3	7	128	7	896	0.109375
8	7	15	32768	15	491520	60
16	15	31	2147483648	31	66571993088	8126464
32	31	63	$9.22337\text{E} + 18$	63	$5.81072\text{E} + 20$	$7.09317\text{E} + 16$
64	63	127	$1.70141\text{E} + 38$	127	$2.16079\text{E} + 40$	$2.63769\text{E} + 36$

FIG. 9B

1002 ADDRESS		1008 RESULT	
1006 INPUT		1010 PICK	
		1012 NEW STATE	
0000	00	XX	00
0000	01	XX	01
0000	10	XX	10
0000	11	XX	11
0001	00	00	01
0001	01	00	01
0001	10	00	01
0001	11	00	01
0010	00	01	10
0010	01	01	10
0010	10	01	10
0010	11	01	10
0011	00	00	01
0011	01	01	10
0011	10	00	01
0011	11	00	01
0100	00	10	11
0100	01	10	11
0100	10	10	11
0100	11	10	11
0101	00	00	01
0101	01	10	11
0101	10	10	11
0101	11	00	01
0110	00	01	10
0110	01	01	10
0110	10	10	11
0110	11	01	10
0111	00	00	01
0111	01	01	10
0111	10	10	11
0111	11	00	01
1000	00	11	00
1000	01	11	00
1000	10	11	00
1000	11	11	00

FIG. 10A

1001	00	00	01
1001	01	11	00
1001	10	11	00
1001	11	11	00
1010	00	01	10
1010	01	01	10
1010	10	11	00
1010	11	11	00
1011	00	00	01
1011	01	01	10
1011	10	11	00
1011	11	11	00
1100	00	10	11
1100	01	10	11
1100	10	10	11
1100	11	11	00
1101	00	00	01
1101	01	10	11
1101	10	10	11
1101	11	11	00
1110	00	01	10
1110	01	01	10
1110	10	10	11
1110	11	11	00
1111	00	00	01
1111	01	01	10
1111	10	10	11
1111	11	11	00

FIG. 10B

1000

1106	1102 ADDRESS		1108 RESULT		1110	1104
	INPUT	STATE	PICK	NEW STATE		
	0000	000	XX	000		
	0000	001	XX	001		
	0000	010	XX	010		
	0000	011	XX	011		
	0000	100	XX	100		
	0000	101	XX	101		
	0000	110	XX	110		
	0000	111	XX	111		
	0001	000	00	000		
	0001	001	00	000		
	0001	010	00	010		
	0001	011	00	010		
	0001	100	00	000		
	0001	101	00	000		
	0001	110	00	010		
	0001	111	00	010		
	0010	000	01	001		
	0010	001	01	001		
	0010	010	01	011		
	0010	011	01	011		
	0010	100	01	001		
	0010	101	01	001		
	0010	110	01	011		
	0010	111	01	011		
	0011	000	01	001		
	0011	001	00	000		
	0011	010	01	011		
	0011	011	00	010		
	0011	100	01	001		
	0011	101	00	000		
	0011	110	01	011		
	0011	111	00	010		
	0100	000	10	100		
	0100	001	10	101		
	0100	010	10	100		
	0100	011	10	101		
	0100	100	10	100		
	0100	101	10	101		
	0100	110	10	100		
	0100	111	10	101		
	0101	000	10	100		

FIG. 11A

0101	001	10	101
0101	010	10	100
0101	011	10	101
0101	100	00	000
0101	101	00	000
0101	110	00	010
0101	111	00	010
0110	000	10	100
0110	001	10	101
0110	010	10	100
0110	011	10	101
0110	100	01	001
0110	101	01	001
0110	110	01	011
0110	111	01	011
0111	000	10	100
0111	001	10	101
0111	010	10	100
0111	011	10	101
0111	100	01	001
0111	101	00	000
0111	110	01	011
0111	111	00	010
1000	000	11	110
1000	001	11	111
1000	010	11	110
1000	011	11	111
1000	100	11	110
1000	101	11	111
1000	110	11	110
1000	111	11	111
1001	000	11	110
1001	001	11	111
1001	010	11	110
1001	011	11	111
1001	100	00	000
1001	101	00	000
1001	110	00	110
1001	111	00	110
1010	000	11	110
1010	001	11	111
1010	010	11	110
1010	011	11	111
1010	100	01	001

FIG. 11B



1010	101	01	001
1010	110	01	011
1010	111	01	011
1011	000	11	110
1011	001	11	111
1011	010	11	110
1011	011	11	111
1011	100	01	001
1011	101	00	000
1011	110	01	011
1011	111	00	010
1100	000	11	110
1100	001	11	111
1100	010	10	100
1100	011	10	101
1100	100	11	110
1100	101	11	111
1100	110	10	100
1100	111	10	101
1101	000	11	110
1101	001	11	111
1101	010	10	100
1101	011	10	101
1101	100	00	000
1101	101	00	000
1101	110	00	010
1101	111	00	010
1110	000	11	110
1110	001	11	111
1110	010	10	100
1110	011	10	101
1110	100	01	001
1110	101	01	001
1110	110	01	011
1110	111	01	011
1111	000	11	110
1111	001	11	111
1111	010	10	100
1111	011	10	101
1111	100	01	001
1111	101	00	000
1111	110	01	011
1111	111	00	010

FIG. 11C

1202	1204
1206	1208
ADDRESS	RESULT
INPUT	PICK
0000	XX
0001	00
0010	01
0011	00
0100	10
0101	00
0110	01
0111	00
1000	11
1001	00
1010	01
1011	00
1100	10
1101	00
1110	01
1111	00

FIG. 12